

WHAT IS CLAIMED IS:

1. A rotating-body control device comprising:

first phase-matching means of Z-phase detection type successively energizing each of a plurality of phases of a rotating body which is driven through energization and resultant excitation of the plurality of phases, for obtaining, when a Z-phase output of an encoder detecting a rotational angle of said rotating body is rendered ON, a
5 correspondence between a count value calculated from an output signal of said encoder and energized phases; and

second phase-matching means of Z-phase non-detection type successively energizing, when an abnormality in encoder output is detected under control by said
10 first phase-matching means, each of said phases for a period of time in which said rotating body can follow change of energized phases, for obtaining, when final energization is done, a correspondence between a count value calculated from an output signal of said encoder and energized phases.

2. The rotating-body control device according to claim 1, further comprising abnormality detecting means for determining that an abnormality occurs in said rotating body or said encoder if an amount of change of a count value calculated from an output signal of said encoder detecting a rotational angle of said rotating body is less than a
5 predetermined threshold value when said rotating body is being rotated.

3. The rotating-body control device according to claim 2, wherein said amount of change is a difference between a count value when rotation of said rotating body starts and a count value when the rotation of said rotating body ends.

4. The rotating-body control device according to claim 2, wherein said amount of change is a difference between a maximum value and a minimum value of the count value when said rotating body is rotating.

5. The rotating-body control device according to claim 1, wherein
said first phase-matching means and said second phase-matching means
include abnormality detecting means for determining that an abnormality occurs in said
rotating body or said encoder if an amount of change of said count value when said
rotating body is being rotated is less than a predetermined threshold value.

6. The rotating-body control device according to claim 5, wherein
said amount of change is a difference between a count value when rotation of
said rotating body starts and a count value when the rotation of said rotating body ends.

7. The rotating-body control device according to claim 5, wherein
said amount of change is a difference between a maximum value and a
minimum value of the count value when said rotating body is rotating.

8. A rotating-body control device comprising:
a first phase-matching unit of Z-phase detection type successively energizing
each of a plurality of phases of a rotating body which is driven through energization
and resultant excitation of the plurality of phases, for obtaining, when a Z-phase output
of an encoder detecting a rotational angle of said rotating body is rendered ON, a
correspondence between a count value calculated from an output signal of said encoder
and energized phases; and

a second phase-matching unit of Z-phase non-detection type successively
energizing, when an abnormality in encoder output is detected under control by said
first phase-matching unit, each of said phases for a period of time in which said rotating
body can follow change of energized phases, for obtaining, when final energization is
done, a correspondence between a count value calculated from an output signal of said
encoder and energized phases.

9. The rotating-body control device according to claim 8, further comprising

an abnormality detecting unit for determining that an abnormality occurs in said rotating body or said encoder if an amount of change of a count value calculated from an output signal of said encoder detecting a rotational angle of said rotating body is less than a predetermined threshold value when said rotating body is being rotated.

5

10. The rotating-body control device according to claim 9, wherein said amount of change is a difference between a count value when rotation of said rotating body starts and a count value when the rotation of said rotating body ends.

11. The rotating-body control device according to claim 9, wherein said amount of change is a difference between a maximum value and a minimum value of a count value when said rotating body is rotating.

12. The rotating-body control device according to claim 8, wherein said first phase-matching unit and said second phase-matching unit include an abnormality detecting unit for determining that an abnormality occurs in said rotating body or said encoder if an amount of change of said count value when said rotating body is being rotated is less than a predetermined threshold value.

5

13. The rotating-body control device according to claim 12, wherein said amount of change is a difference between a count value when rotation of said rotating body starts and a count value when the rotation of said rotating body ends.

14. The rotating-body control device according to claim 12, wherein said amount of change is a difference between a maximum value and a minimum value of the count value when said rotating body is rotating.